



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 21-000527/D02.R00
Report Date: 01/22/2021
ORELAP#: OR100028
Purchase Order:
Received: 01/15/21 12:23

Customer: Trace Minerals Research
Product identity: CBD Hemp Extract 600mg
Client/Metric ID: Lot# 5875A
Laboratory ID: 21-000527-0001

Sample Date: 01/11/21

Summary

Potency:

Analyte	Result	Limits	Units	Status		
CBC	0.0707		%		CBD-Total per 1g	19.8 mg/1g
CBD	1.98		%			
CBDV [†]	0.00774		%		THC-Total per 1g	0.643 mg/1g
CBG [†]	0.0445		%			
Δ9-THC	0.0643		%		CBD-Total per 30g	594 mg/30g
Analyte per 1g	Result	Limits	Units	Status		
CBC per 1g [†]	0.707		mg/1g		THC-Total per 30g	19.3 mg/30g
CBD per 1g	19.8		mg/1g			
CBDV per 1g [†]	0.0774		mg/1g			(Reported in milligrams per serving)
CBG per 1g [†]	0.445		mg/1g			
Δ9-THC per 1g	0.643		mg/1g			
Analyte per 30g	Result	Limits	Units	Status		
CBC per 30g [†]	21.2		mg/30g			
CBD per 30g	594		mg/30g			
CBDV per 30g [†]	2.32		mg/30g			
CBG per 30g [†]	13.4		mg/30g			
Δ9-THC per 30g	19.3		mg/30g			

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
β-Caryophyllene [†]	0.0352	100.00%	Total Terpenes [†]	0.0352	100.00%

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Customer: Trace Minerals Research

Product identity: CBD Hemp Extract 600mg
Client/Metric ID: Lot# 5875A
Sample Date: 01/11/21
Laboratory ID: 21-000527-0001
Relinquished by: USPS
Temp: 15.1 °C
Serving Size #1: 1 g
Serving Size #2: 30 g

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)	Batch: 2100530	Analyze: 1/19/21 2:19:00 AM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.0707		%	0.0032	
CBC-A†	< LOQ		%	0.0032	
CBC-Total†	0.0707		%	0.0059	
CBD	1.98		%	0.0317	
CBD-A	< LOQ		%	0.0032	
CBD-Total	1.98		%	0.0345	
CBDV†	0.00774		%	0.0032	
CBDV-A†	< LOQ		%	0.0032	
CBDV-Total†	0.00774		%	0.0059	
CBG†	0.0445		%	0.0032	
CBG-A†	< LOQ		%	0.0032	
CBG-Total	0.0445		%	0.0059	
CBL†	< LOQ		%	0.0032	
CBN	< LOQ		%	0.0032	
Δ8-THC†	< LOQ		%	0.0032	
Δ9-THC	0.0643		%	0.0032	
THC-A	< LOQ		%	0.0032	
THC-Total	0.0643		%	0.0059	
THCV†	< LOQ		%	0.0032	
THCV-A†	< LOQ		%	0.0032	
THCV-Total†	< LOQ		%	0.0059	
Total Cannabinoids†	2.17		%		

Potency per 1g	Method J AOAC 2015 V98-6 (mod)	Batch: 2100530	Analyze: 1/19/21 2:19:00 AM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g†	0.707		mg/1g	0.0317	
CBC-A per 1g†	< LOQ		mg/1g	0.0317	
CBC-Total per 1g†	0.707		mg/1g	0.0595	
CBD per 1g	19.8		mg/1g	0.317	
CBD-A per 1g	< LOQ		mg/1g	0.0317	
CBD-Total per 1g	19.8		mg/1g	0.345	
CBDV per 1g†	0.0774		mg/1g	0.0317	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.

Testing in accordance with: OAR 333-007-0430



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Potency per 1g Method J AOAC 2015 V98-6 (mod) Batch: 2100530 Analyze: 1/19/21 2:19:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
CBDV-A per 1g [†]	< LOQ		mg/1g	0.0317	
CBDV-Total per 1g [†]	0.0774		mg/1g	0.0592	
CBG per 1g [†]	0.445		mg/1g	0.0317	
CBG-A per 1g [†]	< LOQ		mg/1g	0.0317	
CBG-Total per 1g [†]	0.445		mg/1g	0.0592	
CBL per 1g [†]	< LOQ		mg/1g	0.0317	
CBN per 1g	< LOQ		mg/1g	0.0317	
Δ8-THC per 1g [†]	< LOQ		mg/1g	0.0317	
Δ9-THC per 1g	0.643		mg/1g	0.0317	
THC-A per 1g	< LOQ		mg/1g	0.0317	
THC-Total per 1g	0.643		mg/1g	0.0595	
THCV per 1g [†]	< LOQ		mg/1g	0.0317	
THCV-A per 1g [†]	< LOQ		mg/1g	0.0317	
THCV-Total per 1g [†]	< LOQ		mg/1g	0.0595	
Total Cannabinoids 1g[†]	21.7		mg/1g		

Potency per 30g Method J AOAC 2015 V98-6 (mod) Batch: 2100530 Analyze: 1/19/21 2:19:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g [†]	21.2		mg/30g	0.951	
CBC-A per 30g [†]	< LOQ		mg/30g	0.951	
CBC-Total per 30g [†]	21.2		mg/30g	1.78	
CBD per 30g	594		mg/30g	9.51	
CBD-A per 30g	< LOQ		mg/30g	0.951	
CBD-Total per 30g	594		mg/30g	10.3	
CBDV per 30g [†]	2.32		mg/30g	0.951	
CBDV-A per 30g [†]	< LOQ		mg/30g	0.951	
CBDV-Total per 30g [†]	2.32		mg/30g	1.77	
CBG per 30g [†]	13.4		mg/30g	0.951	
CBG-A per 30g [†]	< LOQ		mg/30g	0.951	
CBG-Total per 30g [†]	13.4		mg/30g	1.77	
CBL per 30g [†]	< LOQ		mg/30g	0.951	
CBN per 30g	< LOQ		mg/30g	0.951	
Δ8-THC per 30g [†]	< LOQ		mg/30g	0.951	
Δ9-THC per 30g	19.3		mg/30g	0.951	
THC-A per 30g	< LOQ		mg/30g	0.951	
THC-Total per 30g	19.3		mg/30g	1.78	
THCV per 30g [†]	< LOQ		mg/30g	0.951	
THCV-A per 30g [†]	< LOQ		mg/30g	0.951	
THCV-Total per 30g [†]	< LOQ		mg/30g	1.79	
Total Cannabinoids 30g[†]	650		mg/30g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2100455	01/18/21	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2100455	01/18/21	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2100456	01/18/21	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2100456	01/18/21	AOAC 2014.05 (RAPID)	X

Solvents		Method EPA5021A				Units µg/g	Batch 2100541	Analyze 01/20/21 09:17 AM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	



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Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2100639 Analyze 01/22/21 10:11 AM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							

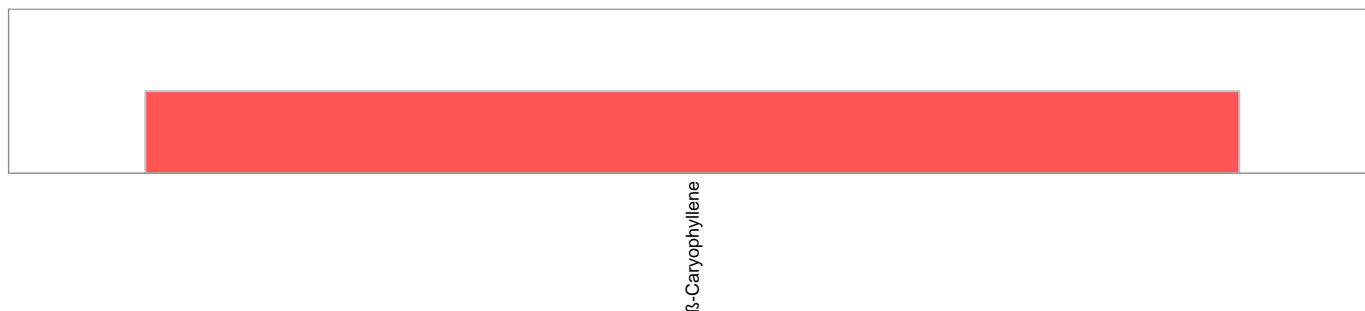


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Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2100554	Analyze 01/20/21 09:36 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
β-Caryophyllene†	0.0352	0.020	100.00%		a-Bisabolol†	< LOQ	0.020	0.00%	
(-)-a-Terpineol†	< LOQ	0.020	0.00%		(-)-caryophyllene oxide†	< LOQ	0.020	0.00%	
(-)-Guaiol†	< LOQ	0.020	0.00%		(-)-Isopulegol†	< LOQ	0.020	0.00%	
(-)-β-Pinene†	< LOQ	0.020	0.00%		(+)-Borneol†	< LOQ	0.020	0.00%	
(+)-Cedrol†	< LOQ	0.020	0.00%		(+)-fenchol†	< LOQ	0.020	0.00%	
(+)-Pulegone†	< LOQ	0.020	0.00%		(±)-Camphor†	< LOQ	0.020	0.00%	
(±)-cis-Nerolidol†	< LOQ	0.020	0.00%		(±)-fenchone†	< LOQ	0.020	0.00%	
(±)-trans-Nerolidol†	< LOQ	0.020	0.00%		(R)-(+)-Limonene†	< LOQ	0.020	0.00%	
a-cedrene†	< LOQ	0.020	0.00%		a-phellandrene†	< LOQ	0.020	0.00%	
a-pinene†	< LOQ	0.020	0.00%		a-Terpinene†	< LOQ	0.020	0.00%	
Camphene†	< LOQ	0.020	0.00%		cis-β-Ocimene†	< LOQ	0.006	0.00%	
d-3-Carene†	< LOQ	0.020	0.00%		Eucalyptol†	< LOQ	0.020	0.00%	
farnesene†	< LOQ	0.020	0.00%		gamma-Terpinene†	< LOQ	0.020	0.00%	
Geraniol†	< LOQ	0.020	0.00%		Geranyl acetate†	< LOQ	0.020	0.00%	
Humulene†	< LOQ	0.020	0.00%		Isoborneol†	< LOQ	0.020	0.00%	
Linalool†	< LOQ	0.020	0.00%		Menthol†	< LOQ	0.020	0.00%	
nerol†	< LOQ	0.020	0.00%		p-Cymene†	< LOQ	0.020	0.00%	
Sabinene†	< LOQ	0.020	0.00%		Sabinene hydrate†	< LOQ	0.020	0.00%	
β-Myrcene†	< LOQ	0.020	0.00%		Terpinolene†	< LOQ	0.020	0.00%	
trans-β-Ocimene†	< LOQ	0.013	0.00%		valencene†	< LOQ	0.020	0.00%	
Total Terpenes	0.0352								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0469	2100499	01/18/21	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0469	2100499	01/18/21	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0469	2100499	01/18/21	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0235	2100499	01/18/21	AOAC 2013.06 (mod.)	X	



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Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1†	< LOQ		µg/kg	5.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	200	2100528	01/19/21	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	2100528	01/19/21	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	2100528	01/19/21	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	2100528	01/19/21	AOAC 2007.01 & EN 15662	

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Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430



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These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

g = Gram

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/1g = Milligram per 1g

mg/30g = Milligram per 30g

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager